### View of End Points for a Data Set

Sponsor	1100021 Albemarie Corporation	n <u>la la l</u>	CreateDate: 12/16/03
CAS No 770	98078 1,2-Benzenedicarboxy	lic acid, 3,4,5,6-tetrabromo-, n	nixed esters with diethylene glycol and propylene
Consortia			
Physical/Chemical	Melting Point	Ecotoxicity	Acute Toxicity to Fish
Properties	Boiling Point		Toxicity to Aquatic Plants
	Vapor Pressure		Acute Toxocity to Aquatic Invertebrates
	Partition Coefficient	Health	Acute Toxicity
	Water Solubility		Genetic Toxicity in Vivo
Environmental Fate	Photodegradation		Genetic Toxicity in Vitro
	Stability in Water		Repeat Dose Toxicity
	Transport		Reproductive Toxicity
	Biodegradation		Developmental Tox/Teratogenicity

OF LEB 10 BUIS: S3
0561 CBIC
RECEINED

### **Physical-Chemical End Point:** EPA High Production Volume (HPV) Track Physical-Chemic Water Solubility 1100021 Sponsor ID **Albemarle Corporation Create Date** 12/16/03 1,2-Benzenedicarboxylic acid, 3,4,5,6-tetrabromo-, mixed Study Number **CAS Number** 77098078 esters with diethylene glycol and propylene glycol Completed: N Consortia ID **Revision Date:** 12/16/03 **Test Substance** 1,2-Benzenedicarboxylic acid, 3,4,5,6-tetrabromo-, 2-(2-hydroxyethoxy)ethyl 2-hydroxypropyl ester Remarks Chemical Category Method >> Method/Guideline followed Estimation >> GLP No >> Year study performed 2003 Remarks for Method The water solubility was estimated by the WSKOW model of EPIwin (v3.04). Only the molecular structure was entered into the program.

### Results

>> Water Solubility Value	0
>> Upper Value	0

# EPA High Production Volume (HPV) Track Physical-Chemical End Point: Water Solubility

Sponsor ID	1100021	Albemarie Corporation	Create Date 12/16
CAS Number	77098078	1,2-Benzenedicarboxylic acid, 3,4,5,6-tetrabre esters with diethylene glycol and propylene	omo-, mixed Study Number glycol
Consortia ID			Completed: N
>> Unit   mg/L			
>> Temperature	25		
>> Solubility Cat	egory Insoluble		
>> pH Value	55	>> pKa Value	55
Results Remark		not applicable. The water solubility was	astimated using a computer program
	pi i and pixa are	Tiot applicable. The water solubility was	estimated using a computer program.
onclusions			
onclusions	The estimated v	vater solubility is 0.05697 mg/L.	
<u>onclusions</u>	The estimated v	vater solubility is 0.05697 mg/L.	
ata Quality	The estimated v	vater solubility is 0.05697 mg/L.	
ata Quality	Reliability	vater solubility is 0.05697 mg/L.	
	Reliability	vater solubility is 0.05697 mg/L.	
ata Quality	Reliability	vater solubility is 0.05697 mg/L.	

# EPA High Production Volume (HPV) Track Physical-Chemical End Point: Water Solubility

CARREST SANCTON CONTRACTOR			446.687.234.638	
Sponsor ID	1100021	Albemarle Corporation	Create Date	12/16/03
CAS Number	77098078	1,2-Benzenedicarboxylic acid, 3,4,5,6-tetrabromo-, mixed esters with diethylene glycol and propylene glycol	Study Number	
Consortia ID		esters with diethylerie grycor and propyrene grycor	Completed:	N
Reference				
>> Remarks	All estimations North Syracuse	were performed using EPI WIN Suite, V.3.04, Syracus , New York.	e Research Corpo	ration,
<u>General</u>				
				***************************************

<u> </u>			
Sponsor ID	1100021	Albemarle Corporation	Create Date 12/16/03
CAS Number	77098078	1,2-Benzenedicarboxylic acid, 3,4,5,6-tetrabromo-, mixed esters with diethylene glycol and propylene glycol	Study Number 1
Consortia ID			Completed: Y
			Revision Date:
est Substance			12/16/03
Remarks	1,2-Benzenedic glycol	arboxylic acid, 3,4,5-tetrabromo-, mixed esters with c	liethylene glycol and propylene
Chemical Category	7		
>> Method/Guidel	line followed		
Other	inie ionoweu		
>> GLP No		>> Year study pe	rformed 1978
>> Species			
rat			
>> Strain   Spragu	ie-Dawley		
>> Sex Both			
>> Number of ma	les per dose	5 >> Number of females per do	<b>5</b>
>> Vehicle corn o	oil		
>> Route of Admi	nistration		
Oral			
Remarks for Me	ethod		

## EPA High Production Volume (HPV) Track Physical-Chemical End Point: Boiling Point

- · · · · · · · · · · · · · · · · · · ·		
Sponsor ID	1100021 Albemarle Corporation	Create Date 12/16/03
CAS Number	77098078 1,2-Benzenedicarboxylic acid, 3,4,5,6-tetrabromo-, mixed esters with diethylene glycol and propylene glycol	Study Number 1
Consortia ID	esters with detriplene grycor and propylene grycor	Completed: Y
	¬	Revision Date:
est Substance		1/8/04
Remarks	1,2-Benzenedicarboxylic acid, 3,4,5,6-tetrabromo-, 2-(2-hydroxyeth	o.,,,,,, ,,,,,,,,
hemical Categor	<b>y</b>	
ethod		
>> Method/Guide	eline followed	
Estimated		
>> GLP No	>> Year study	performed 2003
<u>esults</u>	Remarks for Method	
	The boiling point was estimated using the MPBPWIN module of EPI	win. Only the molecule
	structure was entered into the program.	•
>> Precision =		
>> Boiling Point	Value 538	
>> Ummar Valua	0	
>> Upper Value	U	
	·,	
>> Unit ºC		

## EPA High Production Volume (HPV) Track Physical-Chemical End Point: Boiling Point

	•			
Sponsor ID	1100021	Albemarle Corporation	Create Date	12/16/03
CAS Number	77098078	1,2-Benzenedicarboxylic acid, 3,4,5,6-tetrabromo-, mixed esters with diethylene glycol and propylene glycol	Study Number	1
Consortia ID	4211 (1674) 4211 (1674)		Completed:	Y
	9) 170 pp. 1811 See para-			
>> Pressure	760			
>> Pressure Unit	mm Hg			
>> Decompositio	n No			
Results Remar	rk			
Conclusions				
	The boiling poir	nt was estimated to be 537.52 degrees C.		
Data Quality	B-11-6-11/2-			
	Reliability			
Data Reliability R	emarks			

## EPA High Production Volume (HPV) Track Physical-Chemical End Point: Boiling Point

Sponsor ID	1100021	Albemarle Corporation	Create Date	12/16/03
CAS Number	77098078	1,2-Benzenedicarboxylic acid, 3,4,5,6-tetrabromo-, mixed esters with diethylene glycol and propylene glycol	Study Number	
Consortia ID			Completed:	Y

Reference	
>> Remarks	All estimations were performed using EPI WIN Suite, V.3.04, Syracuse Research Corporation, North Syracuse, New York.
eneral	

## FPA High Production Volume (HPV) Track Physical-Chemical End Point: Melting Point

		Volume (III V) II dek meinigre	
Sponsor ID	1100021	Albemarle Corporation	Create Date 12/16/
CAS Number	77098078	1,2-Benzenedicarboxylic acid, 3,4,5,6-tetrabromo-, esters with diethylene glycol and propylene glycol	mixed Study Number
Consortia ID			Completed: Y
			Revision Date: 1/8/04
t Substance			110/01
Remarks	1,2-Benzenedio	carboxylic acid, 3,4,5,6-tetrabromo-, 2-(2-hydro	xyethoxy)ethyl 2-hydroxypropyl este
emical Category			
thod			
Method/Guideli	ne followed		
Estimated			
			1 1
> GLP No	- Andrea	>> tears	tudy performed 2003
	Remarks for M	ethod	
		nt was estimated by the MPBPWIN module of I	EPIwin (v3.04). Only the
	moecular struct	ure was entered into the program.	
sults	<u> </u>		
> Precision =			
> Melting Point V	alua	230	
/ Weiting Point v	alue	230	
> Upper Value		0	

# EPA High Production Volume (HPV) Track Physical-Chemical End Point: Melting Point

Sponsor ID	1100021	Albemarle Corporation	Create Date	12/16/03
CAS Number	77098078	1,2-Benzenedicarboxylic acid, 3,4,5,6-tetrabromo-, mixed esters with diethylene glycol and propylene glycol	Study Number	
Consortia ID			Completed:	Y
>> Decomposition	n No			
>> Sublimation	No			
Results Remark				
Conclusions				
	The estimated	melting point is 230.13 degrees C.		
Data Quality	Reliability			
Data Reliability Re	emarks			
Reference				
>> Remarks	All estimations Research Corp	on this substance were performed using EPI WIN Suit	te, V.3.04, Syracı	ISE

# EPA High Production Volume (HPV) Track Physical-Chemical End Point: Melting Point

Sponsor ID	1100021	Albemarle Corporation	Create Date	12/16/03
CAS Number	77098078	1,2-Benzenedicarboxylic acid, 3,4,5,6-tetrabromo-, mixed esters with diethylene glycol and propylene glycol	Study Number	i de la companya de
Consortia ID			Completed:	Υ
<u>Seneral</u>			Comments and the comments of t	

**Physical-Chemical End Point:** 

	nakana perincika kanana na majisa j	Volume (HPV) I rack Partition	Coefficient
Sponsor ID	1100021	Albemarle Corporation	Create Date 12/16/
CAS Number	77098078	1,2-Benzenedicarboxylic acid, 3,4,5,6-tetrabromo-, esters with diethylene glycol and propylene glycol	mixed Study Number
Consortia ID			Completed: Y
			Revision Date:
st Substance			12/16/03
Remarks	s 1.2-Benzenedi	carboxylic acid, 3,4,5,6-tetrabromo-, 2-(2-hydro	oxvethoxv)ethyl 2-hydroxypropyl est
Tomani	1,2 50112011001	carboxyrio dola, o, 1,0,0 touabromo , 2 (2 hydro	onyourony)outyr 2 ffydronypropyr ddid
hemical Catego	ry		
ethod			
> Method/Guide	eline followed		
Estimated			
>> GLP No		N Voor	study performed 2003
P OLI NO		77 16413	study periorified 2003
	Remarks for N	lethod	
		pefficient was estimated by the KOWWIN modu ture was entered into the program.	le of EPIwin (v3.04). Only the
	moeculai siluc	ture was entered into the program.	
<u>esults</u>			
>> Precision =	AMI   Balai		
>> Value of Log	Pow	3.82	
>> Upper Value		0	
>> Temperature	25		

## EPA High Production Volume (HPV) Track Physical-Chemical End Point: Partition Coefficient

Sponsor ID	1100021	Albemarle Corporation	Create Date 12/16/
CAS Number	77098078	1,2-Benzenedicarboxylic acid, 3,4,5,6-tetrabromo-, mixed	Study Number
Consortia ID		esters with diethylene glycol and propylene glycol	Completed: Y
Results Ren	nark		
	7		
Conclusions			
	The log Kow wa	as estimated to be 3.82.	
Data Quality	Reliability		
Data Reliability	v Remarks		
Data Nondomi	y Kemarka		
Reference			
>> Remarks	All estimations Research Corp	on this substance were performed using EPI WIN Suit oration, North Syracuse, New York.	e, V.3.04, Syracuse
	•	•	
<u>General</u>			

## EPA High Production Volume (HPV) Track Physical-Chemical End Point: Partition Coefficient

Sponsor ID	1100021	Albemarle Corporation	Create Date	12/16/03
CAS Number	77098078	1,2-Benzenedicarboxylic acid, 3,4,5,6-tetrabromo-, mixed esters with diethylene glycol and propylene glycol	Study Number	1
Consortia ID			Completed:	Y

### EPA High Production Volume (HPV) Track

Physical-Chemical End Point: Vapor Pressure

Sponsor ID	1100021	Albemarle Corporation	Create Date 12/16/0
CAS Number	77098078	1,2-Benzenedicarboxylic acid, 3,4,5,6-tetrabromo-, mixed	Study Number
Consortia ID		esters with diethylene glycol and propylene glycol	Completed: Y
			Revision Date:
st Substance			12/16/03
Remarks	1.2-Benzenedic	carboxylic acid, 3,4,5,6-tetrabromo-, 2-(2-hydroxyethox	cv)ethyl 2-hydroxypropyl este
Romano	1,2 Bonzonoun	salbonyllo dola, e, i,e,e todableme , 2 (2 mjalenyedle)	(y) (a. i.y) 2
nemical Category	<u> </u>		
thod			
> Method/Guidel	ine followed		
Estimated	13111111111111111111111111111111111111		
, p			
> GLP No	NAME OF THE OWNER, ASSOCIATION OF THE OWNER,	>> Year study perf	ormed 2003
	Remarks for Me		- ( 0 0 1)
		ure was estimated by the MPBPWIN module of EPIwir ure was entered into the program.	n (v3.04). Only the
<u>esults</u>			
>> Precision =			
- Landing Control of the Control of			
ng (Vilainananananananananananananananananana			
>> Vapor Pressur	e Value	2.37E-14	
- Jupo. F. 1000ui			
>> Upper Value		0	

# EPA High Production Volume (HPV) Track Physical-Chemical End Point: Vapor Pressure

Sponsor ID	1100021	Albemarie Corporation	Create Date	12/16/03
CAS Number	77098078	1,2-Benzenedicarboxylic acid, 3,4,5,6-tetrabromo-, mixed esters with diethylene glycol and propylene glycol	Study Number	
Consortia ID		esters with the state of the st	Completed:	Y
>> Unit   mm Hg	9			
>> Temperature	<b>e</b> 25			
>> Decomposit	tion No			
Results Rema	ark			
Conclusions				
	The vapor pres	sure was estimated to be 2.37 x 10-14 mm Hg using t	he Modified Grain	Method.
Data Quality	Reliability			
Data Reliability	Remarks			
Reference				

2/5/04

# EPA High Production Volume (HPV) Track Physical-Chemical End Point: Vapor Pressure

Sponsor ID	1100021	Albemarle Corporation	Create Date	12/16/03
CAS Number	77098078	1,2-Benzenedicarboxylic acid, 3,4,5,6-tetrabromo-, mixed esters with diethylene glycol and propylene glycol	Study Number	
Consortia ID			Completed:	Y
>> Remarks	All estimations v North Syracuse	were performed using EPI WIN Suite, V.3.04, Syracus , New York.	e Research Corpo	ration,
General				

# EPA High Production Volume (HPV) Track Environmental Fate and Pathway End Point: Stability in Water

Sponsor ID	1100021	Albemarle Corporation	Create Date	12/16/03
CAS Number	77098078	1,2-Benzenedicarboxylic acid, 3,4,5,6-tetrabromo-, mixed	Study Number	
Consortia ID		esters with diethylene glycol and propylene glycol	Completed:	Y
			Revis	ion Date:
est Substance			Maria La	1/8/04
Remarks	1,2-Benzenedio	carboxylic acid, 3,4,5,6-tetrabromo-, 2-(2-hydroxyetho	xy)ethyl 2-hydrox	kypropyl ester
hemical Category				
ethod				
>> Method/Guideline	e followed			
Estimated	i			
>> Test Type Abiot	ic		191	
>> GLP No		>> Year stud	ly performed	2003
esults	ne molecular st	tructure was entered into the program.		
>> Nominal concent	ration   Not ap	plicable		
>> Measured concer	ntration Not a	applicable		
>> Precision =				
>> Hydrolysis Resul		1		
>> Upper Value		0		
>> Unit Davs				

## EPA High Production Volume (HPV) Track Environmental Fate and Pathway End Point: Stability in Water

Sponsor ID	1100021	Albemarle Corporation	Create Date	12/16/03
CAS Number	77098078	1,2-Benzenedicarboxylic acid, 3,4,5,6-tetrabromo-, mixed esters with diethylene glycol and propylene glycol	Study Number	
Consortia ID			Completed:	Y
>> pHVal	8			
>> Temperature	25 degrees C			
>>Breakdown pr	<b>oducts</b> Unknown			
Results Remarks	The program se	elected the chemical class 'esters' for the estimation. rate constant for esters. For most esters, the base-ca		1
Conclusions				
		hydrolysis rate constant (Kb) for pH > 8 is 5.886 L/mol 363 days. The estimated half-life at pH 7 is 13.629 da		ed half-
Data Quality	Reliability			
Data Reliability R	emarks			
		n this compound were not available from the fragmento, ortho-posistion fragment(s) on phenyl ring were not		
Reference				· · · · · · · · · · · · · · · · · · ·

2/5/04

# EPA High Production Volume (HPV) Track Environmental Fate and Pathway End Point: Stability in Water

Sponsor ID	1100021	Albemarle Corporation	Create Date	12/16/03
CAS Number	77098078	1,2-Benzenedicarboxylic acid, 3,4,5,6-tetrabromo-, mixed esters with diethylene glycol and propylene glycol	Study Number	1
Consortia ID			Completed:	Υ
>> Remarks Seneral	All estimations v	were performed using EPI WIN Suite, V.3.04, Syracus , New York.	e Research Corp	oration,

## EPA High Production Volume (HPV) Track Environmental Fate and Pathway End Point: Biodegradation

Sponsor ID	1100021			
- <b>(</b>	1100021	Albemarle Corporation	Create D	
CAS Number	77098078	1,2-Benzenedicarboxylic acid, 3,4,5,6-tetra esters with diethylene glycol and propylen	bromo-, mixed Study Nu e glycol	imber 1
Consortia ID			Complet	ed: N
				Revision Date:
est Substance				2/2/04
Remarks	1,2-Benzenedic	carboxylic acid, 3,4,5,6-tetrabromo-, 2-(	2-hydroxyethoxy)ethyl 2-h	ydroxypropyl ester
hemical Category				
ethod				
>> Method/Guidelii	ne followed			
Estimated				
>> Test Type				
aerobic				
>> GLP No		>	> Year study performed	2003
>> Contact Time		0		
>> Inoculum		And the second s		
None	The state of the s			
Remarks for Metho	od			
		or the substance to biodegrade was esti	mated using the BIOWIN	module of
	EPIVVIN. Only	the chemical structure was entered.		
				·
esults			_	
>> Precision rang	е			
>> Degradation Val	ue	0		

# EPA High Production Volume (HPV) Track Environmental Fate and Pathway End Point: Biodegradation

Sponsor ID	1100021	Albemarle Corporation	Create Date	12/16/
CAS Number	77098078	1,2-Benzenedicarboxylic acid, 3,4,5,6-tetrabromo-, mixed esters with diethylene glycol and propylene glycol	Study Number	
Consortia ID			Completed:	N
>> Upper value		0		
>> Time Frame		0		
>> Time Units				
>> Breakdown pro	oducts Unknown			
Results Remarks	3			
onclusions				
	non-linear mode	stimated that the substance would not biodegrade fast el prediction. The program also estimated that the ulti months and the primary biodegradation timeframe, we	mate biodegradat	
	fast" or "does not the transformat	fines these terms as the following. The numerical defi ot biodegrade fast" was not provided in the module. U ion of a parent compound to CO2 and H2O. Primary to of a parent compound to an initial metabolite.	Iltimate biodegrad	dation is
Data Quality	Reliability			

Data Reliability Remarks

# EPA High Production Volume (HPV) Track Environmental Fate and Pathway End Point: Biodegradation

Sponsor ID	1100021	Albemarle Corporation	Create Date	12/1
CAS Number	77098078	1,2-Benzenedicarboxylic acid, 3,4,5,6-tetrabromo-, mixed esters with diethylene glycol and propylene glycol	Study Number	
Consortia ID			Completed:	N
<u>erence</u>				
erence Remarks	All estimations v	vere performed using EPI WIN Suite, V.3.04, Syracus New York.	e Research Corpo	oration,
			e Research Corpo	oration,
			e Research Corpo	oration,
			e Research Corpo	pration,

## EPA High Production Volume (HPV) Track Environmental Fate and Pathway End Point: Photodegradation

Sponsor ID	1100021	Albemarle Corporat	ion	Create Date	12/16/03
CAS Number	77098078	1,2-Benzenedicarbo	xylic acid, 3,4,5,6-tetrabromo-, mixed ne glycol and propylene glycol	Study Number	
Consortia ID				Completed:	N
				Rev	ision Date:
st Substan	ce			1	2/16/03
Rema	ırks 1,2-Benzenedi	carboxylic acid, 3,4,	5,6-tetrabromo-, 2-(2-hydroxyetho	oxy)ethyl 2-hydro	xypropyl ester
hemical Cateç	jory				
ethod					
>> Method/Gu	ideline followed				
Estimated					
> Light Sour	ce Not applicable	>	> Light Source Spectrum in nm		
>> Relative Int	tensity Not applica	ble			
>> Absorption	n Spectrum of Subs	tance Not applicab	le		
>> GLP No			>> Year study	performed	2003
Remarks for N	<b>flethod</b>				
	hydroxyl radic estimated rate molecule base	als and the molecule constant is used by d upon average atm	eric, gas-phase reaction between was estimated using the AOPWI the program to calculate the atm hospheric concentrations of hydro	N module of EPI ospheric half-life	win. The of the
	Only the mole	cular structure was e	entered into the program.		
<u>esults</u>					
>> Concentrat >> Unit Days		0			
>> Temperatu	re Not specified				

## EPA High Production Volume (HPV) Track Environmental Fate and Pathway End Point: Photodegradation

		Comments She factor is as 400	anotteatavanistr Staadaat 13
Sponsor ID 1100021	Albemarle Corporation	Create Date	12/16/03
CAS Number 77098078 1	,2-Benzenedicarboxylic acid, 3,4,5,6-tetrabromo-, mixed sters with diethylene glycol and propylene glycol	Study Number	1
Consortia ID		Completed:	N
>> Direct Photolysis Precision =			
>> Direct Photolysis	0		
>> Direct Photolysis Upper value	0		
>> Direct Photolysis Unit Days			
>> Indirect Photolysis Precision			
>> Indirect Photolysis	0		
>> Indirect Photolysis Upper value	0		
>> Indirect Photolysis Unit			
>> Sensitizer XXX			
>> Sensitizer Concentration	>> Sensitizer Unit		
>> Rate Constant xxx			
>> Breakdown products Unknown			
Results Remark			
,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,			

Conclusions

## EPA High Production Volume (HPV) Track Environmental Fate and Pathway End Point: Photodegradation

-				
Sponsor ID	1100021	Albemarle Corporation	Create Date	12/16/0
CAS Number	77098078	1,2-Benzenedicarboxylic acid, 3,4,5,6-tetrabromo-, mixed esters with diethylene glycol and propylene glycol	Study Number	
Consortia ID			Completed:	N
		rate constant was estimated to be 30.51 x 10(-12) cm red to be 0.351 days based on a 12-hr day and 1.5 x 10		The half-
Data Quality	Reliability			
Data Reliability F	Remarks			
Reference				
>> Remarks	All estimations North Syracuse	were performed using EPI WIN Suite, V.3.04, Syracus e, New York.	e Research Corpo	oration,
General				

### EPA High Production Volume (HPV) Track

Environmental Fate and Pathway End Point: Transport between Environmental Compartments (Fugacity)

Sponsor ID	1100021	Albemarle Corporation	Create Date	12/16/03
CAS Number	77098078	1,2-Benzenedicarboxylic acid, 3,4,5,6-tetrabromo-, mixed esters with diethylene glycol and propylene glycol	Study Number	
Consortia ID			Completed:	Y

**Revision Date:** 

12/16/03

#### **Test Substance**

Remarks

1,2-Benzenedicarboxylic acid, 3,4,5,6-tetrabromo-, 2-(2-hydroxyethoxy)ethyl 2-hydroxypropyl ester

#### **Chemical Category**

#### Method

#### >> Method/Guideline followed

**Estimated** 

>> Test Type

Level III fugacity model

>> Year study performed

2003

#### Remarks for Method

The transport between environmental compartments and environmental partitioning was estimated using a Level III Fugacity Model, EPIwin. Only the molecule structure was entered into the program.

Emissions to air, water, soil and sediment set at 1000, 1000, 1000 and 0 kg/hr, respectively

#### <u>Results</u>

#### >> Media

Air 0.0008%, Water 15.6%; Soil 82.3%; Sediment 2.04%

#### >> Distribution Concentration

Fugacity (atm): Air 4.39 x 10-20, Water 1.6 x 10-21, Soil 1.4 x 10-21, Sediment 1.6 x 10-21

Reaction (kg/hr): Air 3.27, Water 358, Soil 1.9 x10+3, Sediment 12

Advection (kg/hr): Air 0.4, Water 743, Soil 0, Sediment 2

Reaction (%): Air 0.1, Water 12, Soil 63, Sediment 0.4

# EPA High Production Volume (HPV) Track Environmental Fate and Pathway End Point: Transport between Environmental Compartments (Fugacity)

Sponsor ID	1100021	Albemarle Corporation	Create Date	12/16/03
CAS Number	77098078	1,2-Benzenedicarboxylic acid, 3,4,5,6-tetrabromo-, mixed esters with diethylene glycol and propylene glycol	Study Number	
Consortia ID		esters with diethylene grycor and propylene grycor	Completed:	Y
	Advection (%	): Air 0.01, Water 25, Soil 0, Sediment 0.06		
Results Remark				
Conclusions	Vapor Presss	3		
Data Quality	partitioning to	the environment, the molecule is expected to partion to water (15%) and sediment (2%) are much less. Negle air (0.0008%).	, ,	
Data Reliability Rema	arks			
Reference			The state of the s	
>> Remarks	(	ns were performed using EPI WIN Suite, V.3.04, Syrac se, New York.	use Research Co	orporation,
General				

## EPA High Production Volume (HPV) Track

Environmental Fate and Pathway End Point: Transport between Environmental Compartments (Fugacity)

Sponsor ID	1100021	Albemarle Corporation	Create Date	12/1	6/03
CAS Number	77098078	1,2-Benzenedicarboxylic acid, 3,4,5,6-tetrabromo-, mixed esters with diethylene glycol and propylene glycol	Study Number		1
Consortia ID			Completed:	Υ	
					1111

Sponsor ID	1100021	Albemarle Corporation	Create Date	12/16/03
CAS Number	77098078	1,2-Benzenedicarboxylic acid, 3,4,5,6-tetrabromo-, mixed esters with diethylene glycol and propylene glycol	Study Number	
Consortia ID			Completed:	Υ
			R	evision Date
Гest Substanc	<u>:e</u>		I	12/16/03
Remar	ks 1,2-Benzenedic propylene glyco	arboxylic acid, 3,4,5,6-tetrabromo-, mixed esters with	diethylene glycol a	and
Chemical Catego	ory			
<u>Method</u>				
>> Method/Guid	deline followed			
Conducted pri	or to established guid	lelines.		
>> Test Type				
static				7707811
>> GLP No		>> Year study po	erformed 1979	
>> Species				
Lepomis mac	rochirus			
>> Analytical m	nonitoring No data			
>> Exposure pe	eriod 96 hours			
>> Statistical M	lethod Not known			
Remarks for Mo	ethod			
		were exposed to concentrations of 10, 18, 32, 56 and test concentrations were cloudy with the top 2 doses		

### <u>Results</u>

Sponsor ID 1100	O021 Albemarle Corporation	Create Date	12/16/03
CAS Number 77098	1,2-Benzenedicarboxylic acid, 3,4,5,6-tetrabromo-, mixed esters with diethylene glycol and propylene glycol	Study Number	1
Consortia ID		Completed:	Y
>> Nominal concentration	0, 18, 32, 56, 100		
>> Measured concentration	No data		
>> Precision =			
>> Endpoint Type LC50			
>> Endpoint Value	>> Unit used mg/L		
>> Concentration Type Nom	inal >> Endpoint Time	96	
>> Statistical results The 95% confidence interval	limits were 1-18 mg/L.		
Results Remark			
Conclusions			
The 96 hr	LC50 in bluegill sunfish was 12 mg/L.		
Data Quality Reliability			

Data Reliability Remarks

Sponsor ID	1100021	Albemarle Corporation	Create Date	12/16/0
CAS Number	77098078	1,2-Benzenedicarboxylic acid, 3,4,5,6-tetrabromo-, mixed esters with diethylene glycol and propylene glycol	Study Number	
Consortia ID			Completed:	Y
<u>Reference</u>				
>> Remarks		orbis A. 1979. Acute toxicity of FM PHT-4 Diol (EX-1 chirus). Analytical Bio Chemistry Laboratories, Inc.	) to Bluegil sunfi	sh
	(======================================	·		
eneral_				

### EPA High Production Volume (HPV) Track

Ecotoxicity End Point: Acute Toxicity to Fish

Sponsor ID	1100021	Albemarle Corporation	Create Date 12/16/03
CAS Number	77098078	1,2-Benzenedicarboxylic acid, 3,4,5,6-tetrabromo-, mixed	Study Number 2
Consortia ID		esters with diethylene glycol and propylene glycol	Completed: Y
			Revision Date
est Substance			2/2/04
Remarks	1,2-benzenedica	arboxylic acide, 3,4,5,6-tetrabromo-, 2-(2-hydroxyetho:	xy)ethyl 2-hydroxypropyl ester
Chemical Category	y		
/lethod	<b></b>		
>> Method/Guide	line followed		
Estimated			
>> Test Type	71111		
static	and the state of t		
>> GLP No		>> Year study pe	erformed 2003
		10000	
>> Species			
Not applicable			
>> Analytical mo	nitoring Not appl	icable	
			j.
>> Exposure peri	od 96 Hours		
>> Statistical Met	thod Not applicat	ole	
Remarks for Met			
	1	nodule of EPIWIN was used to estimate the EC50 in fi al structure was entered into the software program.	sh for this substance.
	The ECOSAR c	alculated the water solubility to be 37.96 mg/L. This is	s very different from the

water solubility calculated by WSKOW, another module in EPIWIN, 0.5697 mg/L at 25 deg C.

### <u>Results</u>

Sponsor ID	1100021	Albemarle Corporat	ion		Create Date	12/16/03
CAS Number	77098078	1,2-Benzenedicarbo	xylic acid, 3,4,5,6-tetra ne glycol and propylen	bromo-, mixed e glycol	Study Number	2
Consortia ID					Completed:	Y
>> Nominal conc	entration Not app	olicable				
>> Measured con	ncentration Not ap	plicable				
>> Precision =						
>> Endpoint Type	e LC50					
>> Endpoint Valu	1e	10 >> U	nit used mg/L			
>> Concentration	n Type Nominal	>> Er	ndpoint Time		96	
>> Statistical res	sults					
Not applicable						
Results Remar	'k					
		THE RESERVE THE PROPERTY OF TH				
Conclusions						
	The 96 Hour LC	50 was estimated to	o be 9.973 mg/L.			
Data Quality	Reliability					

Data Reliability Remarks

Sponsor ID	1100021	Albemarle Corporation	Create Date	12/16/0
CAS Number	77098078	1,2-Benzenedicarboxylic acid, 3,4,5,6-tetrabromo-, mixed esters with diethylene glycol and propylene glycol	Study Number	
Consortia ID			Completed:	Υ
<u>eference</u>	<u> </u>			
>> Remarks	All estimations w	vere performed using EPI WIN Suite, V.3.04, Syracuse	e Research Corpo	ration,
	, ito, ar Oyracass,			
eneral				
<u>reneral</u>				

# EPA High Production Volume (HPV) Track Ecotoxicity End Point: Acute Toxicity to Aquatic Invertebrates

Sponsor IE	) [ [	1	100021	Albemarle Corporation	Create Date	12/16/03
CAS Numb	er 💮	77(	098078	1,2-Benzenedicarboxylic acid, 3,4,5,6-tetrabromo-, mixed esters with diethylene glycol and propylene glycol	Study Number	r [25 22]
Consortia	ID [			esters with diethylene grycor and propylene grycor	Completed:	Y
					Revis	sion Date:
Test Substance					- VVVIII MARA	2/2/04
R	emarks	1,2-ber	nzenedio	arboxylic acide, 3,4,5,6-tetrabromo-, 2-(2-hydroxyetho	ixy)ethyl 2-hydr	oxypropyl ester
Chemical C Method	ategory					
>> Method	l/Guidelii	ne follo	wed			
Estimate	d					
>> Test Ty	/pe					
static						
>> GLP	No			>> Year study	performed 2	2003
>> Species	s					
Daphnia	sp.					
>> Analytical monitoring		toring	Not app	olicable		
>> Exposure period		48 Hou	rs			
>> Statistical Method			Not app	blicable		
Remark	s for Met	hod				
		substa The E0	nce. Or COSAR	module of EPIWIN was used to estimate the EC50 in Inly the chemical structure was entered into the softward calculated the water solubility to be 37.96 mg/L. This is calculated by WSKOW, another module in EPIWIN, 0	e program. is very different	from the

### <u>Results</u>

# EPA High Production Volume (HPV) Track Ecotoxicity End Point: Acute Toxicity to Aquatic Invertebrates

Sponsor ID	1100021	Albemarle Corporation	Create Date	12/16/03
CAS Number	77098078	1,2-Benzenedicarboxylic acid, 3,4,5,6-tetrabromo-, mixed	Study Number	
Consortia ID	is: This is	esters with diethylene glycol and propylene glycol	Completed:	Y
>> Nominal conce	ntration Not a	pplicable		
>> Measured conc	entration Not a	applicable		
>> Precision =				
>> Enducint Type	1.050			
>> Endpoint Type	LC50			
>> Endpoint Value	)	11 >> Unit used mg/L		
>> Concentration	Type Nominal	>> Endpoint Time 48	3	
			J	
>> Statistical resu	ılts			
Not applicable				
Results Remark				
Conclusions	Value of the second of the sec			
Conclusions	The 48 Hour E	C50 in Daphnids was estimated to be 10.779 mg/L.		
	THE 40 HOULE	000 in Daprimus was estimated to be 10.779 mg/c.		
Data Quality	Reliability		W	
Data Quanty	- 10/10/11/19			

## EPA High Production Volume (HPV) Track Ecotoxicity End Point: Acute Toxicity to Aquatic Invertebrates

Sponsor ID	1100021	Albemarle Corporation	Create Date	12/16/03
CAS Number	77098078	1,2-Benzenedicarboxylic acid, 3,4,5,6-tetrabromo-, mixed esters with diethylene glycol and propylene glycol	Study Number	
Consortia ID			Completed:	Y
			THE PLANT OF THE PROPERTY OF T	
<u>leference</u>				
>> Remarks	All estimations v	were performed using EPI WIN Suite, V.3.04, Syracus . New York.	e Research Corpor	ation,
	, , , , , , , , , , , , , , , , , , , ,	,		
Seneral				
<u>Jonician</u>				

### EPA High Production Volume (HPV) Track Ecotoxicity End Point: Toxicity to Aquatic Plants

Sponsor ID	1100021	Albemarle Corporation	Create Date	12/16/03
CAS Number	77098078	1,2-Benzenedicarboxylic acid, 3,4,5,6-tetrabromo-, mixed esters with diethylene glycol and propylene glycol	Study Number	1
Consortia ID			Completed:	N
			Revis	ion Date:
est Substance				2/2/04
Remarks 1,2	-benzenedica	rboxylic acide, 3,4,5,6-tetrabromo-, 2-(2-hydroxyeth	oxy)ethyl 2-hydro	kypropyl ester
Chemical Category				
<u>/lethod</u>				
>> Method/Guideline f	ollowed			
Estimated				
>> Test Type				
static				
>> GLP No		>> Year study	performed 2003	Transporting
>> Species				
Green algae				
>> End Point EC50				
>> Analytical monitori	ng Not appli	icable		
>> Exposure period	96 Hour			
>> Statistical Method	Not appli	icable		
Remarks for Method				

The ECOSAR module of EPIWIN was used to estimate the LC50 in green algae for this substance. Only the chemical structure was entered into the software program.

The ECOSAR calculated the water solubility to be 37.96 mg/L. This is very different from the water solubility calculated by WSKOW, another module in EPIWIN, 0.5697 mg/L at 25 deg C.

#### **Results**

### EPA High Production Volume (HPV) Track Ecotoxicity End Point: Toxicity to Aquatic Plants

Sponsor ID 1100021	Albemarle Corpor	ation		Create Date	12/16/03
CAS Number 77098078	1,2-Benzenedicar	boxylic acid, 3,4,5,6-tetrab lene glycol and propylene	romo-, mixed	Study Number	
Consortia ID	esters with thethy	iene grycor and propylene	glycol	Completed:	N
No Nominal concentration   Not on	mliachla				
>> Nominal concentration   Not ap	pplicable		711 TO THE REST OF	TRANS.	
>> Measured concentration Not ap	oplicable				
>> Precision =					
>> Endpoint Type EC50-CD					
>> Endpoint Value	1	>> Unit used mg/L			
>> Concentration Type   Nominal		>> Endpoint Time		96	
>> NOEC Precision	>> NOEC	0	>> Unit us	sed	
>> NOEC Concentration Type					
>> NOEC Effect(s) assesse					
>> LOEC Precision	>> LOEC	0	>> Unit us	ed	
>> LOEC Concentration Type					
>> LOEC Effect(s) assesse					
>> Response of Control Group (wa	s it satisfactory?				
>> Statistical results					
Results Remark	, , , , , , , , , , , , , , , , , , ,				
***************************************					

<u>Conclusions</u>

#### EPA High Production Volume (HPV) Track Toxicity of

Ecotoxicity End Point : Toxicity to Aquatic Plants

	The state of the s		
Sponsor ID	1100021	Albemarle Corporation	Create Date 12/16/03
CAS Number	77098078	1,2-Benzenedicarboxylic acid, 3,4,5,6-tetrabromo-, mixed esters with diethylene glycol and propylene glycol	Study Number 1
Consortia ID			Completed: N
	The estimated 96	6 hour EC50 in green algae for this substance was 0.8	349 mg/L.
		ated the water solubility to be 37.96 mg/L. This is very ted by WSKOW, another module in EPIWIN, 0.5697 m	
Data Quality	Reliability		
Data Reliability Re	emarks		
Reference			
>> Remarks	All estimations w Syracuse, New Y	ere performed using EPI WIN Suite, V.3.04, Syracuse /ork.	Research Corporation, North
<u>General</u>			

			•	and the second of the second o	
Sponsor ID	1100021	Albemarle Corporatio	n	Create Date	12/16/03
CAS Number	77098078	1,2-Benzenedicarboxy	rlic acid, 3,4,5,6-tetrabromo-, mixed glycol and propylene glycol	Study Number	1
Consortia ID			gryddiai'u propyraid gryddi	Completed:	Y
				Revisior	
est Substance				12	2/16/03
			MANUAL		
Remarks	1,2-Benzenedic	carboxylic acid, 3,4,5-	tetrabromo-, mixed esters with d	liethylene glycol and	d propylene
nemical Category					
>> Method/Guideli	ne followed				
Other	1813				
>> GLP No			>> Year study pe	rformed 1978	
> Species					
rat					
>> Strain   Sprague	-Dawley				
>> Sex Both					
>> Number of male	es per dose	5	>> Number of females per do	se	5
>> Vehicle   corn oi					
				_	
>> Route of Admin	istration				
Oral					
Demarks for Mo	thod				

Sponsor ID	1100021	Albemarle Corporation	Create Date	12/16/03
CAS Number	77098078	1,2-Benzenedicarboxylic acid, 3,4,5,6-tetrabromo-, mixed esters with diethylene glycol and propylene glycol	Study Number	1
Consortia ID			Completed:	Υ
	Observations w thereafter for 14	ere recorded during the first 4 hours post-dosing, at 24 days.	4 hours and daily	
<u>lesults</u>				
>> Precision >				
>>Acute Lethal Va	ilue	10000		
>> Unit mg/kg-by	V			
>> Deaths per Do	se			
No deaths occurr				
Results Remark				
onclusions				
	The LC50 oral v	vas > 10,000 mg/kg.		
ata Quality	Reliability			
			THE PARTY OF THE P	Wash

Sponsor ID	1100021	Albemarle Corporation	Create Date	12/16/0
CAS Number	77098078	1,2-Benzenedicarboxylic acid, 3,4,5,6-tetrabromo-, mixed esters with diethylene glycol and propylene glycol	Study Number	
Consortia ID			Completed:	Υ
Reference				
>> Remarks	Dean W. Acute	toxicity studies in rabbits and rats - PM PHT-4Diol. Ir	nternational Resear	ch and
	Development C	orp. #163-592. 29 June 1978.	nomational Neseal	on and
Seneral				
	Sponsored by V	elsicol.		
				7 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8

Sponsor ID	1100021	Albemarle Corporation	Create Date 12/16/03
CAS Number	77098078	1,2-Benzenedicarboxylic acid, 3,4,5,6-tetrabromo-, mixed esters with diethylene glycol and propylene glycol	Study Number 2
Consortia ID		esters with diethylane grycov and propyrene grycor	Completed: N
			Revision Date:
st Substance			2/4/04
Remarks	1,2-Benzenedio	carboxylic acid, 3,4,5-tetrabromo-, mixed esters with di	ethylene glycol and propylene
nemical Category			
ethod			
>> Method/Guidel	ine followed		
Other			
> GLP Unknow	'n	>> Year study per	formed 1978
> Species			
rat			
> Strain Charles	River CD		
> Sex Both	<u> </u>	E N. M	
> Number of mal		5 >> Number of females per dos	<b>se</b> 5
>> <b>Vehicle</b> Not ap	phiicapie		
> Route of Admi	nistration		
Inhalation			
Remarks for Me	ethod		

041-1974-1984-1984-1984-1984-1984-1984-1984-198	2007 - 625 DOMEST - 120 - 12 - 12 - 12 - 12 - 12 - 12 - 1		<ul> <li>*** 5 (2.5) (2.5)</li> <li>*** 5 (2.5) (3.5)</li> <li>*** 5 (2.5) (3.5)</li> <li>*** 5 (2.5) (3.5)</li> </ul>	900000000 V (000000000000000000000000000
Sponsor ID	1100021	Albemarle Corporation	Create Date	12/16/0
CAS Number	77098078	1,2-Benzenedicarboxylic acid, 3,4,5,6-tetrabromo-, mixed esters with diethylene glycol and propylene glycol	Study Number	
onsortia ID			Completed: N	
		e female rats were exposed for one hour to a saturate. The concentation of the vapor was calculated to l		on of
<u>ılts</u>				
Precision >				
Acute Lethal V	/alue	0		
<b>Unit</b> mg/L(aìı	r)			
Unit mg/L(ai	r)			
Deaths per Do	ose	sure or the 14-day observation period.		
Deaths per De	ose	sure or the 14-day observation period.		
Deaths per Do	ose rred during the expo	sure or the 14-day observation period.		
Deaths per Do	ose rred during the expo			
Deaths per Do	ose rred during the expo	sure or the 14-day observation period. rificed at the end of the study and necropsied. No gr	oss lesions were	
Deaths per Do	ose rred during the expon k All rats were sacr		oss lesions were	
Deaths per Do	ose rred during the expon k All rats were sacr		oss lesions were	
Deaths per Do	rred during the exponents    All rats were sacrobserved.			

Sponsor ID	1100021	Albemarie Corporation	Create Date	12/1
CAS Number	77098078	1,2-Benzenedicarboxylic acid, 3,4,5,6-tetrabromo-, mixed esters with diethylene glycol and propylene glycol	Study Number	
Consortia ID			Completed:	N
<u>ference</u>				
Ference Remarks		e inhalaiton toxiciyt study in rats - FM PHT-4 DIOL. In orp. #163-599, 30 Aug 1978.	iternational Resea	irch and
			iternational Resea	irch and
			iternational Resea	arch and
Remarks		orp. #163-599, 30 Aug 1978.	iternational Resea	arch and

	was a sure and the sure of the sure and		
Sponsor ID	1100021	Albemarle Corporation	Create Date 12/16/03
CAS Number	77098078	1,2-Benzenedicarboxylic acid, 3,4,5,6-tetrabromo-, mixed esters with diethylene glycol and propylene glycol	Study Number 3
Consortia ID		esters with dietrigiene glycol and propylene glycol	Completed: Y
			Revision Date:
est Substance			2/4/04
Remarks	1,2-Benzenedic glycol	arboxylic acid, 3,4,5-tetrabromo-, mixed esters with di	ethylene glycol and propylene
Chemical Category	7		
>> Method/Guidel Other	ine followed		
>> GLP Unknow	rn	>> Year study per	formed 1978
>> Species			
rabbit			
>> Strain New Ze	ealand white		
>> Sex Both			
>> Number of mal	es per dose	2 >> Number of females per dos	<b>Se</b> 2
>> Vehicle None			
>> Route of Admi	nistration		
Dermal			
Remarks for Me	ethod		

	1100021 Albemarle Corporation	Create Date	12/16/
CAS Number	77098078 1,2-Benzenedicarboxylic acid, 3,4,5,6-tetrabromo-, mixed	Study Number	
Consortia ID	esters with diethylene glycol and propylene glycol	Completed:	Y
	The test substance was applied to clipped sites on the backs of 2 male rabbits. Just prior to dosing the sites on one male and one female we other two remained intact. The test material was applied at a dose of application sites were wrapped with gauze bandaging and overwrapped several layers of Elastoplast tape. After 24 hours, the bandages were washed with water and examined. Examinations were repeated daily for the substance of the substance	re abraded; those 20,000 mg/kg ad ed iwth Saran Wra removed and the	e of the n the ap and
esults			
> Precision  >			
>Acute Lethal Va	lue 20000		
> Unit mg/kg-bv	V		
>> Deaths per Do	se		
>> Deaths per Do			
	on test.		
No animals died o	on test.		slight to
No animals died o	on test.  No animals died, and all appeared normal during the 14-day observati		slight to
No animals died o	No animals died, and all appeared normal during the 14-day observation slight erythema, edema and atonia were noted during the observation		slight to
	on test.  No animals died, and all appeared normal during the 14-day observati		slight to

Sponsor ID	1100021	Albemarle Corporation	Create Date	12/1
CAS Number	77098078	1,2-Benzenedicarboxylic acid, 3,4,5,6-tetrabromo-, mixed esters with diethylene glycol and propylene glycol	Study Number	
Consortia ID			Completed:	Υ
	<u> </u>			
erence	<u> </u>			
	Dean W. Acute Development Co	toxicity studies in rabbits and rats - PM PHT-4Diol. Ir orp. #163-592. 29 June 1978.	nternational Resear	ch and
	Dean W. Acute Development Co	toxicity studies in rabbits and rats - PM PHT-4Diol. Ir orp. # 163-592. 29 June 1978.	nternational Resear	ch and
Remarks	Dean W. Acute Development Co	toxicity studies in rabbits and rats - PM PHT-4Diol. Ir orp. # 163-592. 29 June 1978.	nternational Resear	rch and
Remarks	Dean W. Acute Development Co	orp. # 163-592. 29 June 1978.	nternational Resear	ch and
erence Remarks	Development Co	orp. # 163-592. 29 June 1978.	nternational Resear	rch and

# EPA High Production Volume (HPV) Track Toxicity End point: Toxicity in Vitro (Gene Mutations)

		voidille (i ii v) i i deit		
Sponsor ID	1100021	Albemarle Corporation	Create Date	12/16/03
CAS Number	77098078	1,2-Benzenedicarboxylic acid, 3,4,5,6-tetrabromo-, esters with diethylene glycol and propylene glycol	mixed Study Number	1
Consortia ID		esters with diethylene grycor and propyrene grycor	Completed:	Υ
			Revis	ion Date:
est Substance				2/4/04
Remarks	1,2-Benzenedica glycol.	arboxylic acid, 3,4,56-tetrabromo-, mixed este	rs with diethylene glyco	l and propylend
hemical Category				
ethod				
>> Method/Guideli	ne followed			
Other				
>> Test Type				
Ames test	TATALON TO THE TATALO		The state of the s	
>> System of Testi	ng Bacterial			
>> GLP Unknown		>> Year	study performed   19	77
		\(\frac{1}{2}\)		
>> Species				
Salmonella typhir	nurium, Saccharo	myces (D4)		
>> Metabolic Activ	ation			
Tested with and v	vithout metabolic	activation		
>> Concentration				
0.001, 0.01, 0.1,	1.0 ug/plate			
>> Statistical Meth	od Not provided	in IUCLID summary		
		,		
Remarks for Me	inoa			
				***************************************

Toxicity End point: Toxicity in Vitro (Gene Mutations)

Sponsor ID	1100021	Albemarle Corporation	Create Date	12/16/0
CAS Number	77098078	1,2-Benzenedicarboxylic acid, 3,4,5,6-tetrabromo-, mixed esters with diethylene glycol and propylene glycol	Study Number	
Consortia ID		esters with diethyrene grycol and propylene grycol	Completed:	Y
<u>sults</u>				
> Result Negat	iive			
> Cytotoxic Cor	ncentration			
Not provided in	IUCLID summary			
> Genotoxic Eff	ects Unconfirme	d		
> Statistical res	ults			
Not provided in	IUCLID summary			
Results Remar	k			
				777
nclusions				
IICIUSIONS				
	The test compo	ound did not demonstrate mutagenic activity either with	or without metabo	olic
	activation.			
ata Quality	Reliability			
ata Reliability R	emarks			
, , , , , , , , , , , , , , , , , , ,	(MIII			

<u>Reference</u>

Toxicity End point: Toxicity in Vitro (Gene Mutations)

Sponsor ID	1100021	Albemarle Corporation	Create Date	12/16/03
CAS Number [	77098078	1,2-Benzenedicarboxylic acid, 3,4,5,6-tetrabromo-, mixed esters with diethylene glycol and propylene glycol	Study Number	1
Consortia ID			Completed:	Y
>> Remarks	Brusick D. Muta 1977.	agenicity evaluation of 859-82-4. Litton Bionetecs, LB	I project #2683. N	//arch
<u>General</u>	Sponsored by V	/elsicol Chemical Corp.		

Toxicity End point: Toxicity in Vitro (Gene Mutations)

Sponsor ID	1100021	Albemarle Corporation	Create Date	12/16/03
CAS Number	77098078	1,2-Benzenedicarboxylic acid, 3,4,5,6-tetrabromo-, mixed esters with diethylene glycol and propylene glycol	Study Number	2]
Consortia ID			Completed:	Υ
est Substance			Revisi	on Date: 2/4/04
			WARE	
Remarks	s 1,2-Benzenedic glycol.	arboxylic acid, 3,4,5,6-tetrabromo-, mixed esters with	diethylene glycol	and propylene
hemical Categor	У			
ethod				
>> Method/Guide	line followed			
Other				
>> Test Type				
Ames test				
>> System of Tes	sting Bacterial			
>> GLP Yes	***************************************	>> Year study	performed 198	<b>35</b>
>> Species			-	
Salmonella typl				
>> Metabolic Act	ivation			
Arochlor 1254-i	induced rat liver S-	9 fraction		
>> Concentration	1			
0, 50, 100, 500	, 1000, 5000 ug/pla	ate		
>> Statistical Me	thod Not availab	le.		
Remarks for N	lethod			
	and without met	Diol was tested in Salmonella strains TA1535, TA1537 tabolic activation. The test article was not soluable at d in triplicate. An untreated control, solvent control anntly.	the highest dose	. Each

Toxicity End point: Toxicity in Vitro (Gene Mutations)

Sponsor ID	1100021	Albemarle Corporation	Create Date	12/16/03
CAS Number	77098078	1,2-Benzenedicarboxylic acid, 3,4,5,6-tetrabromo-, mixed	Study Number	2
Consortia ID		esters with diethylene glycol and propylene glycol	Completed:	Y
<u>Results</u>				
>> Result Nega	tive			
>> Cytotoxic Cor	ncentration			
Toxic in all stra	ins at 5000 ug/plat	e.		
>> Genotoxic Eff	ects Unconfirme	d	May 7 (10) Let 7 (10)	
>> Statistical res	ults			
Not available.				
Conclusions				
Oliciusjolis				
	The test article	was not mutagenic.		
Data Quality	Reliability			
Data Reliability R	emarks			
A STATE OF THE STA	(1786)			

2/5/04

<u>Reference</u>

Toxicity End point: Toxicity in Vitro (Gene Mutations)

Sponsor ID	1100021	Albemarle Corporation	Create Date	12/16/03
CAS Number	77098078	1,2-Benzenedicarboxylic acid, 3,4,5,6-tetrabromo-, mixed esters with diethylene glycol and propylene glycol	Study Number	2
Consortia ID [			Completed:	Y
>> Remarks		ulholland. 1985. Genetic Toxicology Salmonella/Micr tex RB79. Genetic Toxicology Laboratory. Ethyl Tech		
<u>General</u>				
	Sponsor: Ethyl	Corporation, Baton Rouge, LA.		